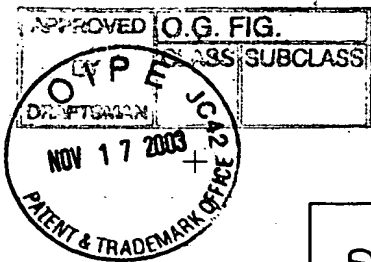


**(D) Amendments to the Drawings**

The attached sheets of drawings include changes to Figures 9, 18-20. These sheets replace the original sheets including Figures 1-20. The changes aim at correcting the margin and improving the quality of lines and numbering.



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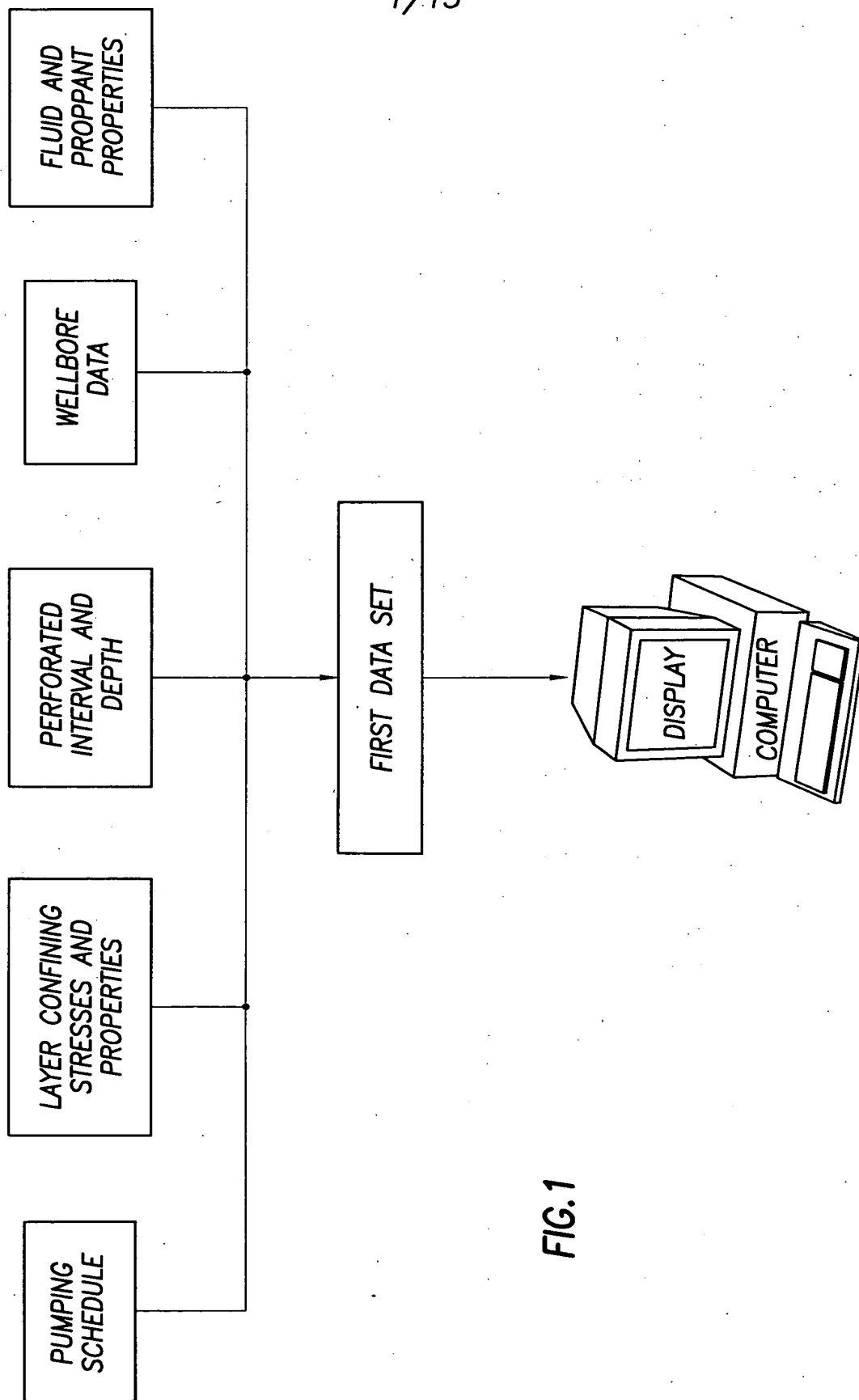


FIG. 1

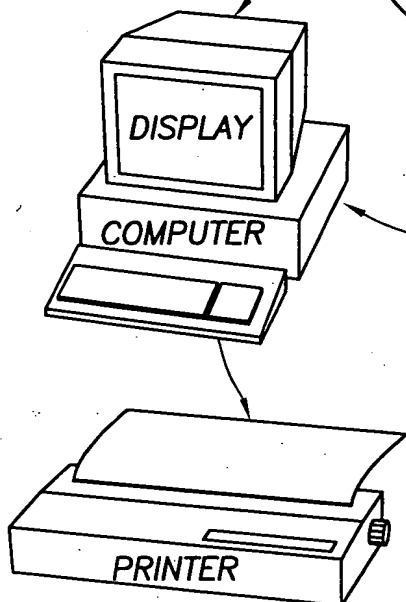


O.G. FIG.  
CLASS SUBCLASS

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FIRST DATA SET  
REPRESENTING THE  
PHYSICAL PROPERTIES  
NECESSARY TO DETERMINE  
SIZE AND GROWTH OF  
THE FRACTURE

FIG.2



CALCULATE VALUES  
REPRESENTING  
PHYSICAL DIMENSIONS  
OF FRACTURE AND  
PRESSURES INSIDE  
FRACTURE

FIG.3

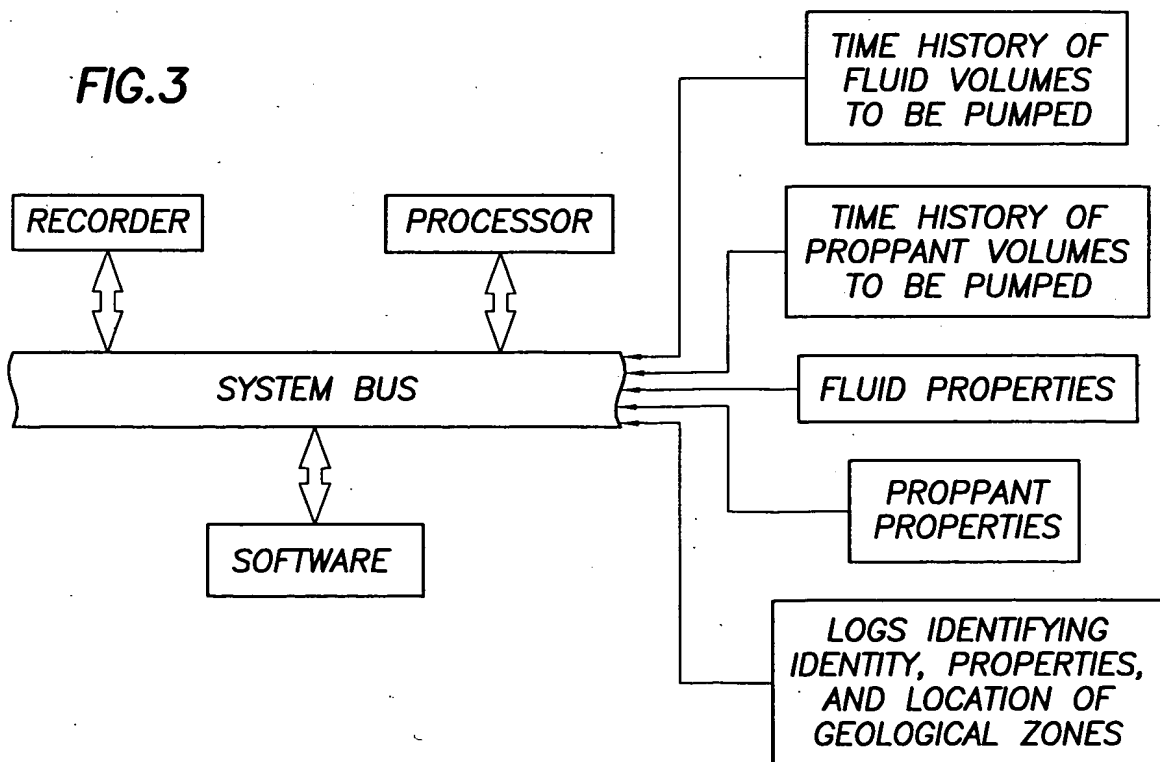


FIG. 4

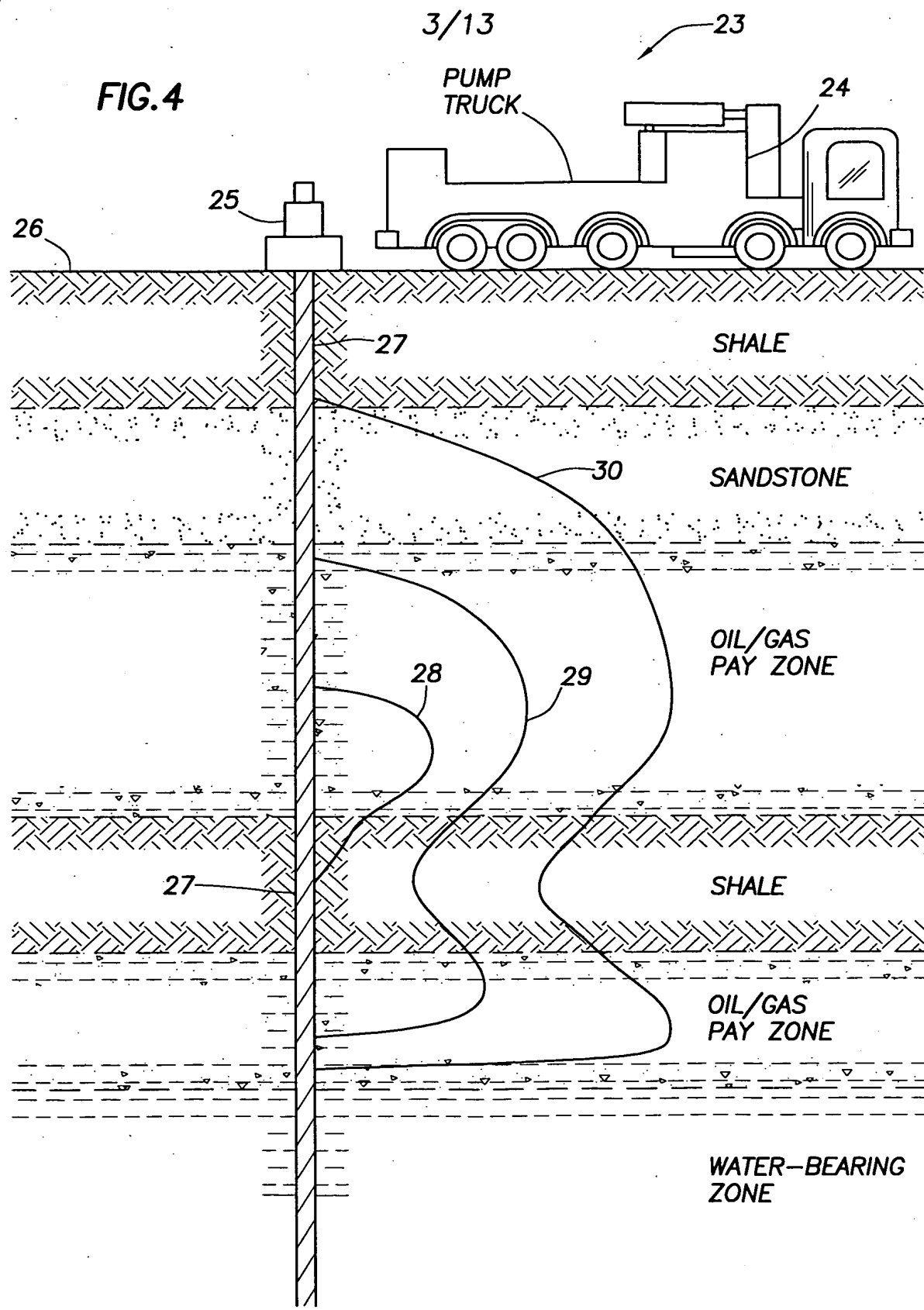




FIG.	4/13
CLASS	SUBCLASS

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FIG.7  
(PRIOR ART)

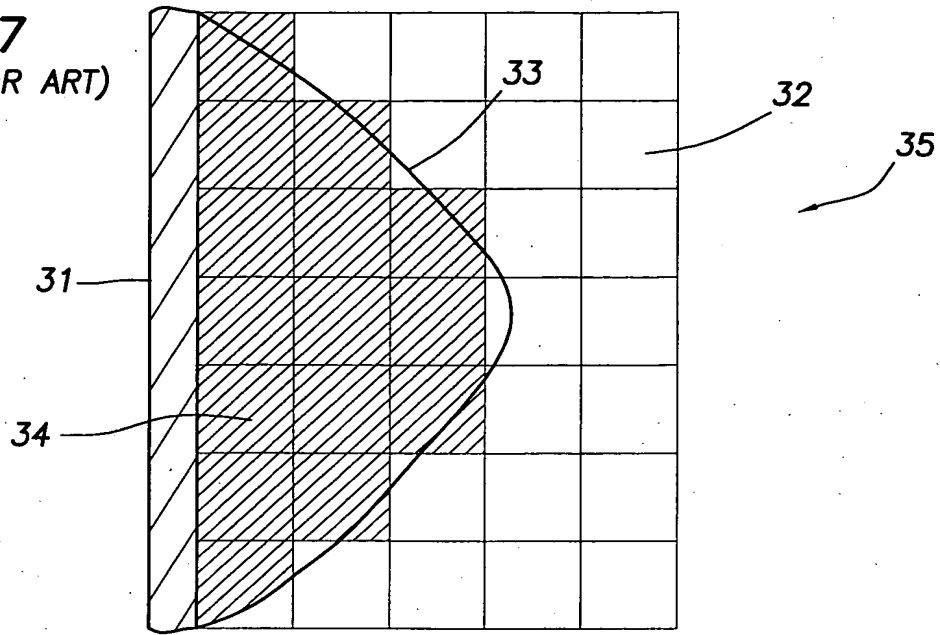


FIG.5

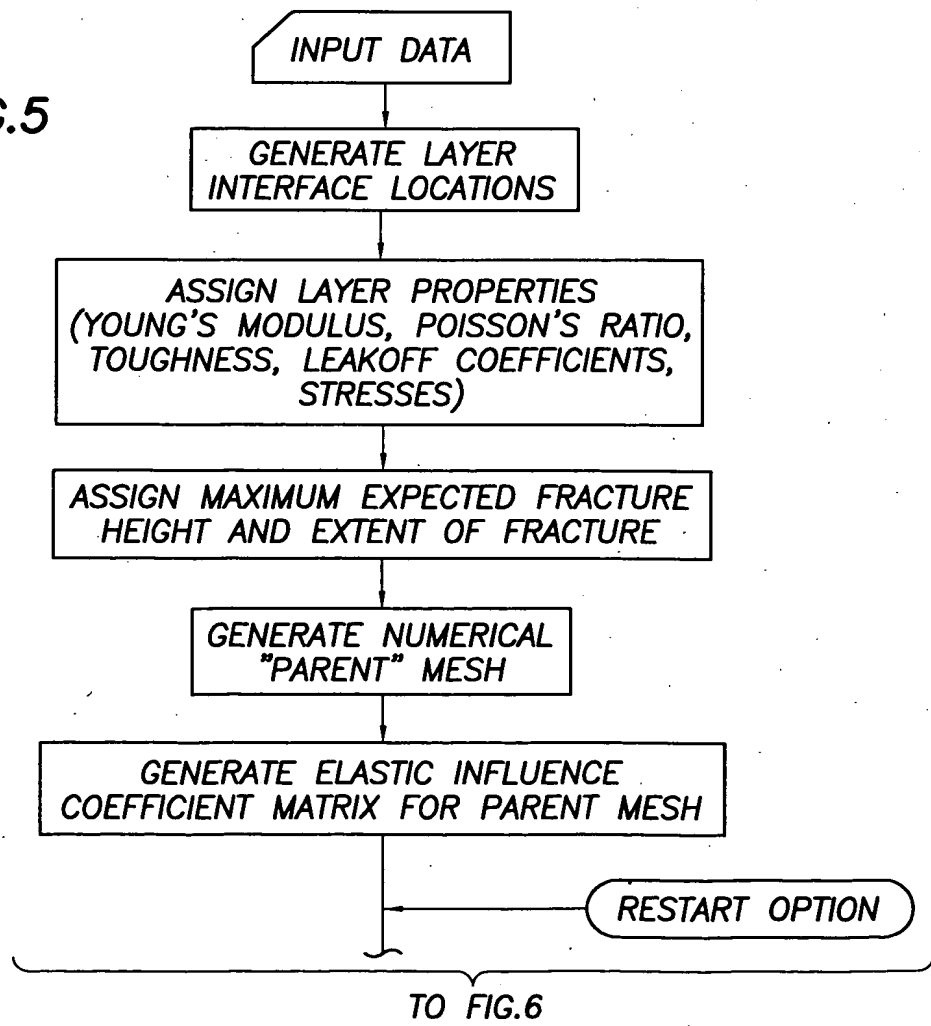
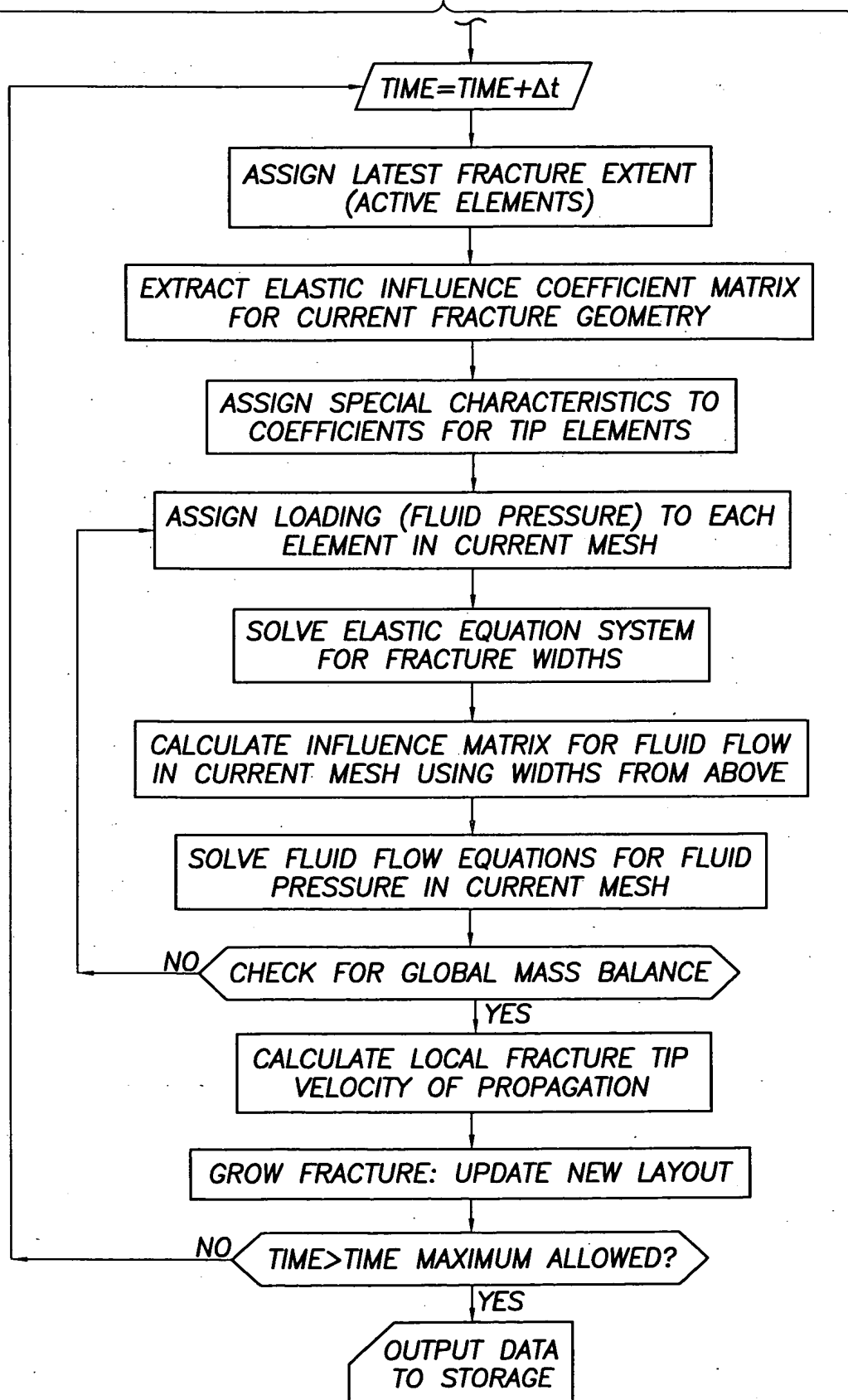


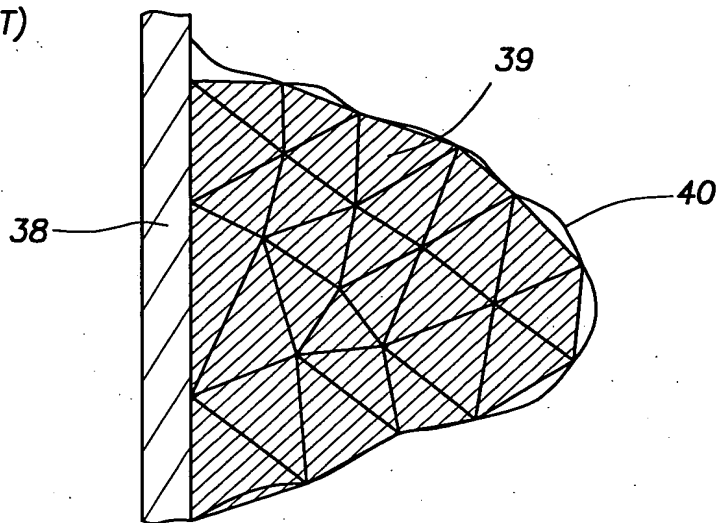
FIG.6

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FROM FIG.5



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**FIG.8**  
(PRIOR ART)



**FIG.12**

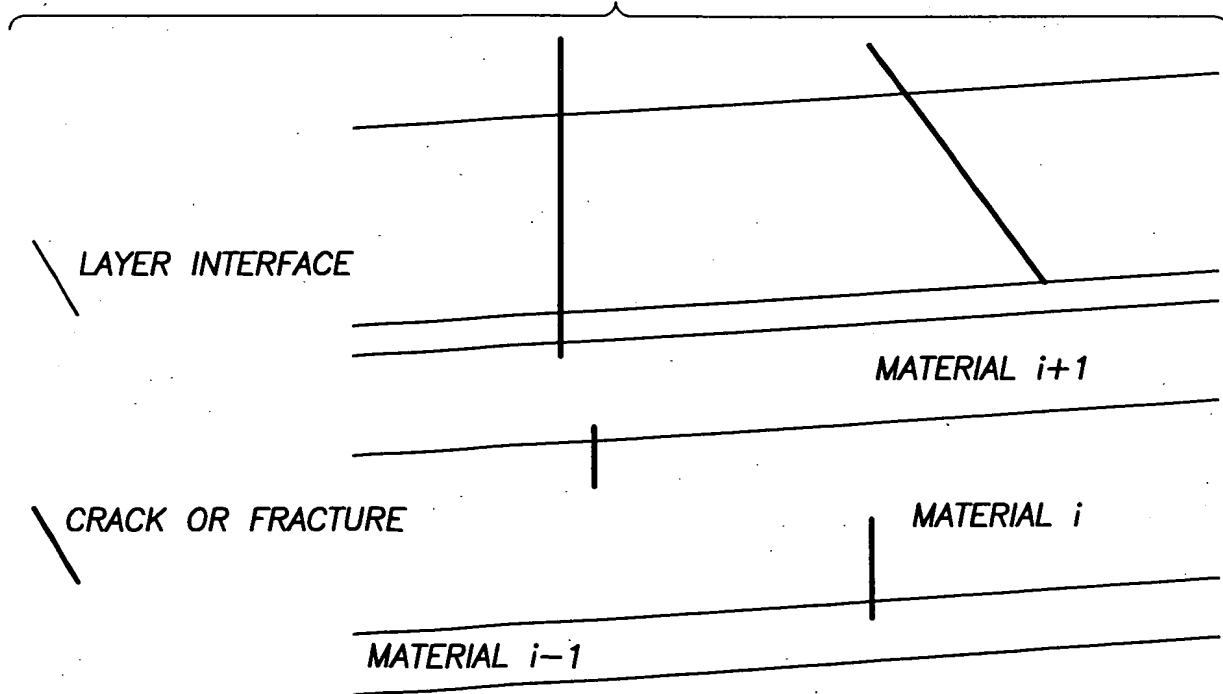
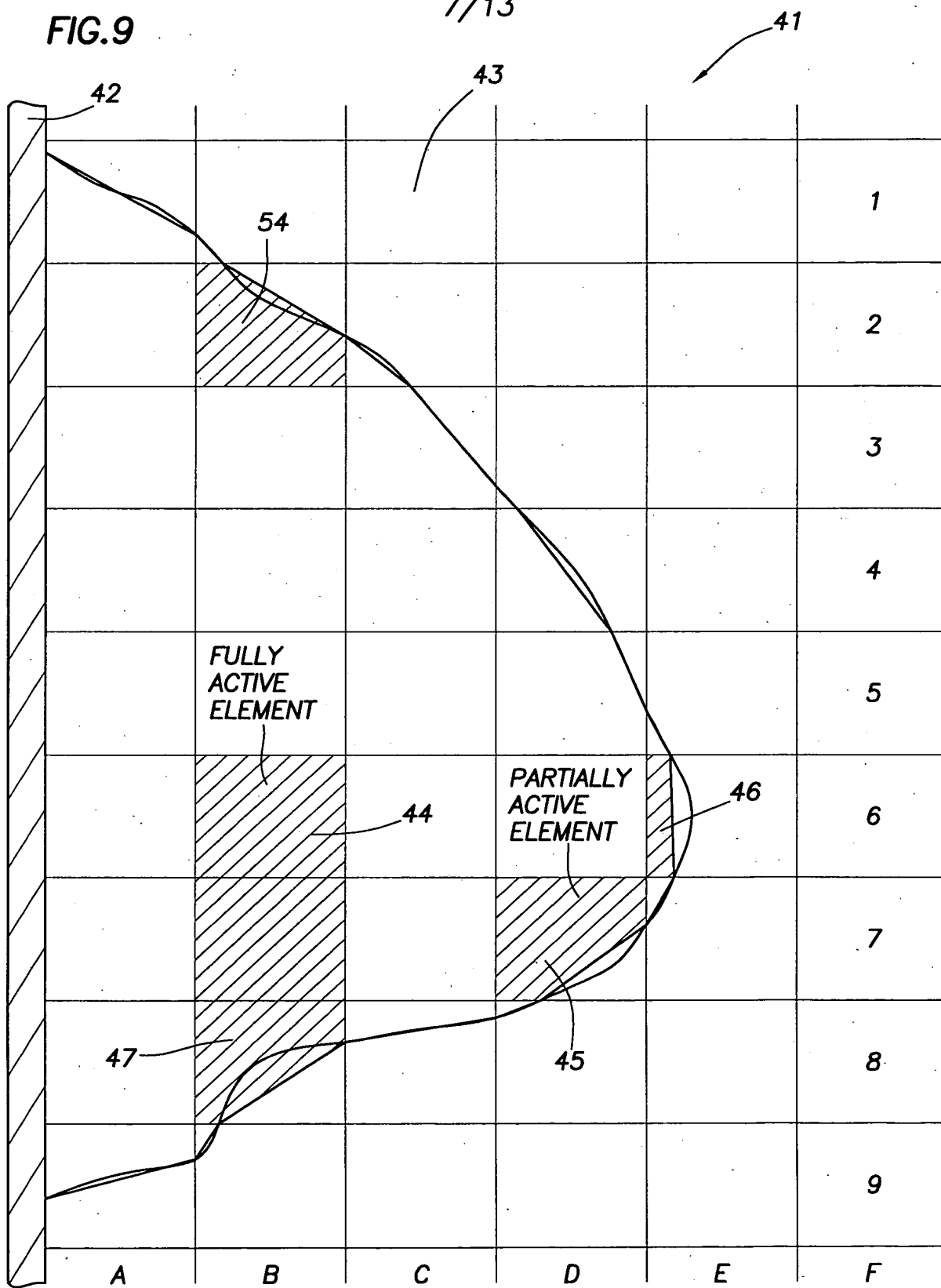


FIG. 9

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APPROVED C.G. FIG.  
CLASS SUBCLASS

FIG. 10

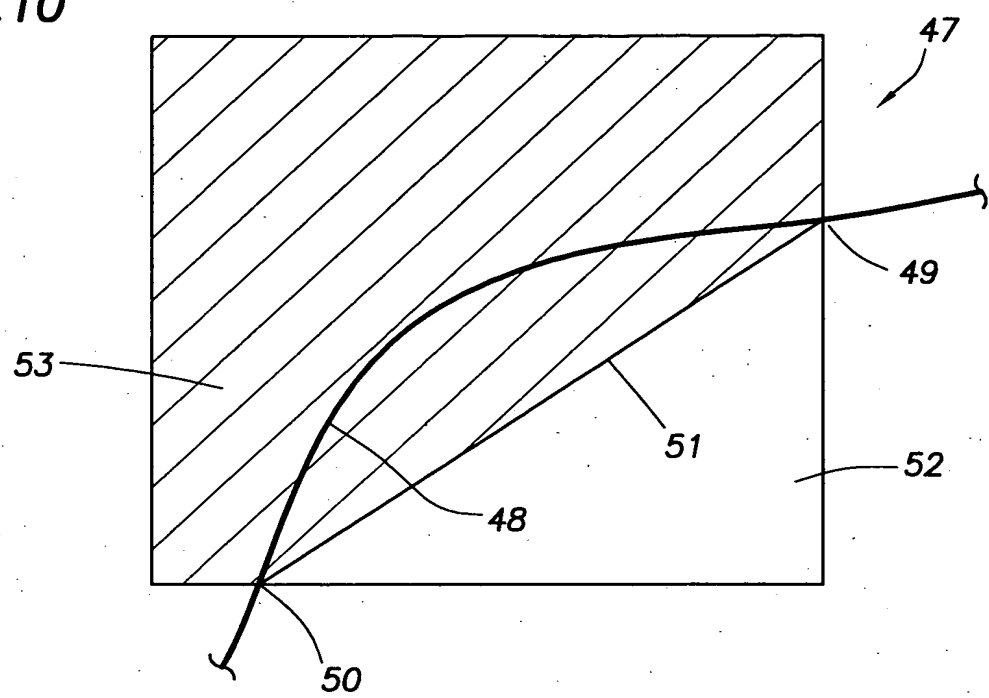


FIG. 11

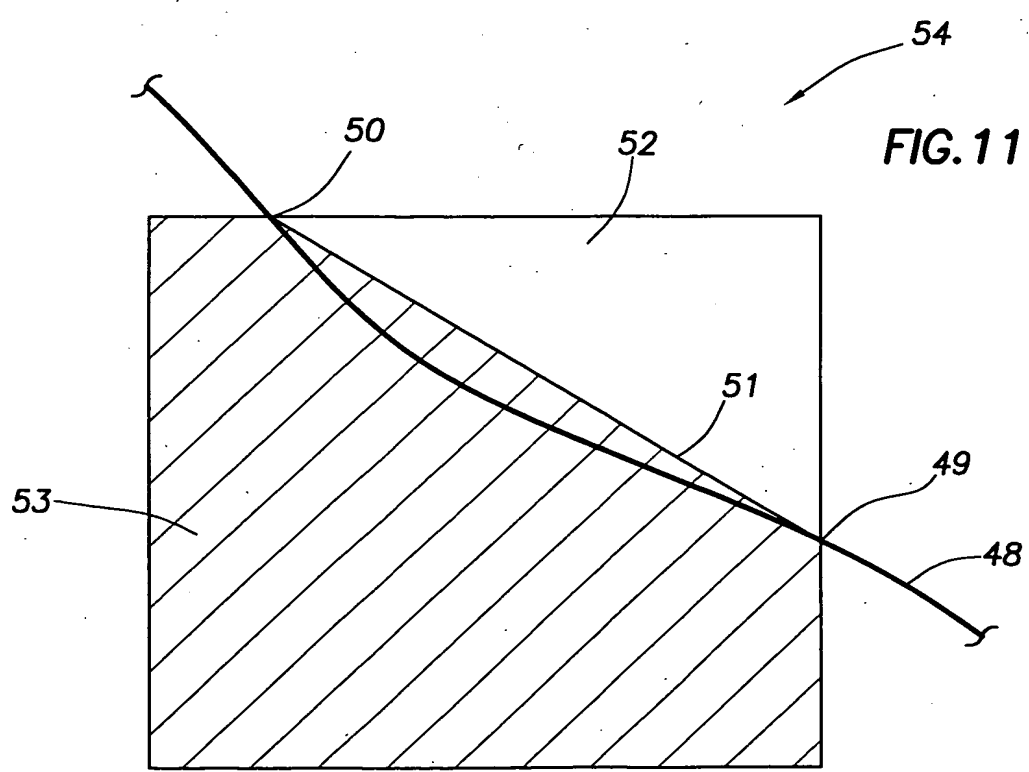


FIG.13

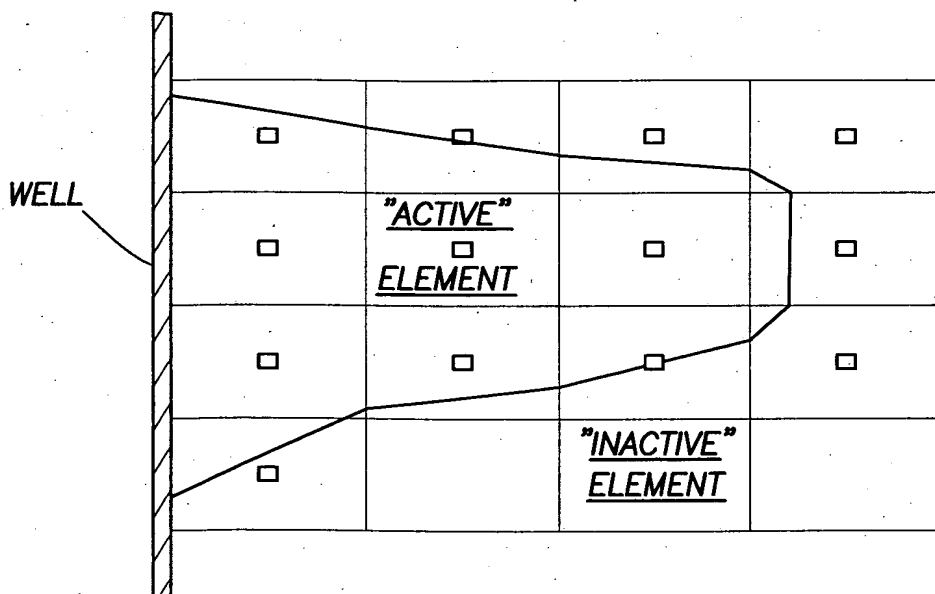
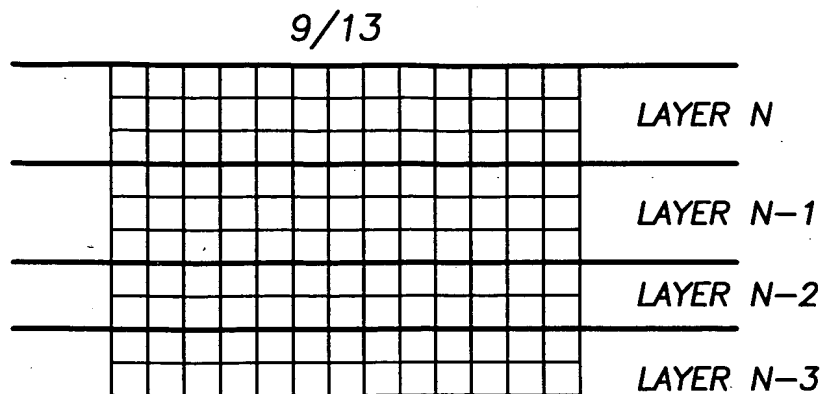
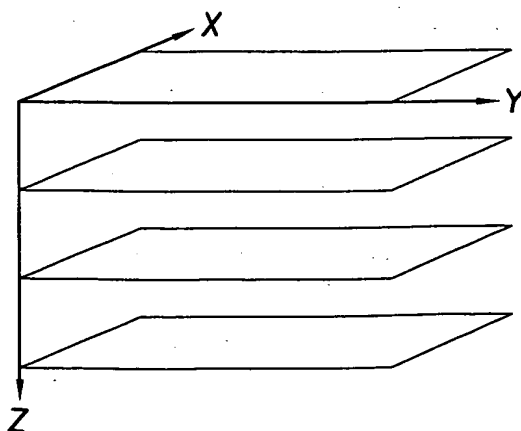


FIG.14

FIG.15



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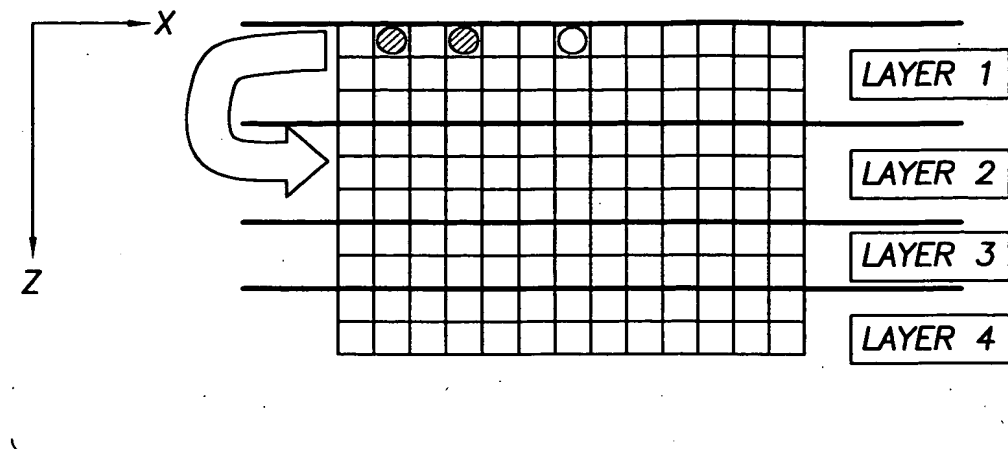


FIG.16

FIG.17

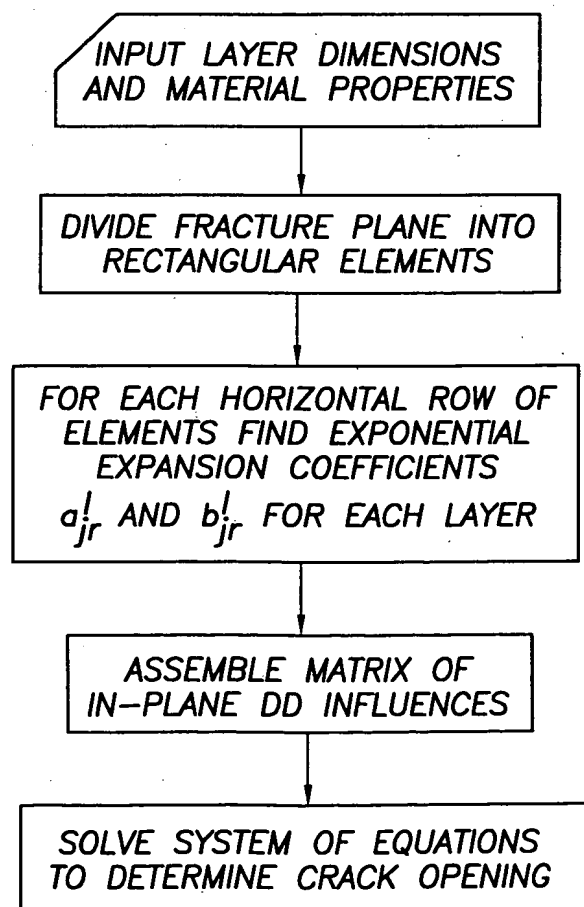


FIG.18

☐ Dowell FracCADE - [Zone]

☐ File
 ☐ Edit
 ☐ View
 ☐ FracCADE
 ☐ General
 ☐ Input
 ☐ Tools
 ☐ Window
 ☐ Help

☐ ?

☐ Admin
 ☐ Well
 ☐ Res Fld
 ☐ Zone
 ☐ Fluid
 ☐ Prop

Single Zone Summary

Description
 

Zone Index
 
 Zone Name
 
 Rock Type

Dimensions
 

Top TVD	4900.0 ft
Top MD	4900.0 ft
Gross Height	100.0 ft
Leakoff Height	100.0 ft
Net Height	100.0 ft
Spacing	60 acres

Saturations
 

Gas	65.0%
Oil	10.0%
Water	25.0%

Physical Properties
 

Porosity	10.0%
Permeability	1 md
Fracture Gradient	0.626 psi/ft
Minimum In-situ Stress	3099 psi
Reservoir Pressure	2317 psi
Young's Modulus	5.619E+06 psi
Poisson's Ratio	0.20
Fracture Toughness	1200 psi.in0.5
Specific Gravity	2.50

Zone Perforations
 

Number	0
Diameter	0.320 in

Edit Parameters
 Fixed Variable
 
 Shift Direction



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FIG. 19

☐ Dowell FracCADE - [Fracturing Fluids]

☐ File ☐ Edit ☐ View ☐ FracCADE General ☐ Input ☐ Tools ☐ Window ☐ Help

☐ Admin ☐ Well ☐ Res Flid ☐ Zon

☐ Description

Index  Name

☐ Database ☐ Properties

Rheology (Power Law)

$n'$

$K$

Visc.

$\Theta$

Base Fluid Sp Gr

Fluid Surface Temp

☐ Fluid Rheology Table

Rheology Table

Shear Rate

Temperature Selection

Temperature

Exp. Time hr	$n'$	$k$ lbf.s <sup>n'</sup> /ft <sup>2</sup>	Viscosity cp
1	0.1	1.69E-1	352.752
2	0.5	1.23E-1	299.503
3	1.0	8.10E-2	218.570
4	1.5	5.00E-2	183.612
5	2.0	1.80E-2	215.381
6			

☒ Display Constant Rheology Interpolation Parameters

Constant Rheology Interpolation Parameters

Temperature  Exposure Time

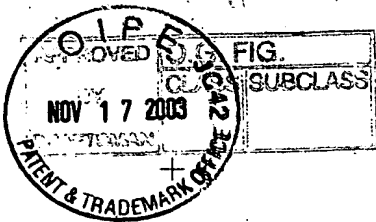


FIG.20

